REMARKS

This paper is filed in response to the final official action dated November 13, 2008 (hereafter, the "official action"). This paper is timely filed.

Claims 1, 4-13, and 15-29 are pending in this application as of the official action. By the foregoing, claims 1 and 13 have been amended and claims 6, 7, 14-19, 28, and 29 have been canceled without prejudice or disclaimer. Claims 8 and 9 have been amended to change their dependencies. Additionally, claims 30-34 have been added. Support for the amendments and new claims may be found throughout the application, for example, in figures 4c and 5-8 and the various paragraphs in discussion thereof or relevance thereto. No new matter has been added.

This paper is timely filed as it is accompanied by a request for continued examination and authorization of payment by credit card in the amount of the requisite fee.

Claims 1, 4, 5, 10, 11, 13, 15, 16, 19, 20, 22, 26, and 27 have been rejected as anticipated by U.S. Patent No. 5,594,463 to Sakamoto. Additionally, claims 6, 7, 12, 17, 18, 25, 28, and 29 have been rejected as obvious over Sakamoto in view of one or more of U.S. Patent Publication No. 2002/0167471 to Everitt, U.S. Patent No. 6,730,966 to Koyama, U.S. Patent No. 5,075,596 to Young, and U.S. Patent No. 6,861,810 to Rutherford. The art-based rejections are respectfully traversed.

The Examiner indicated that Sakamoto anticipated the subject matter of claims 1-5, 10, 11, 13-16, 19, 20, 22, 26, and 27. The examiner's finding is respectfully contested as applied to amended claims 1 and 13.

Claim 1 as amended recites:

> Display driver control circuitry for controlling a display driver for an electroluminescent display, the display comprising a plurality of electroluminescent display elements, the driver including a plurality of substantially constant current generators for simultaneously driving said plurality of display elements, each said constant current generator being configured for regulating the current on an associated display drive line driving a set of said electroluminescent display elements, the display driver control circuitry comprising:

> a drive voltage sensor for sensing a voltage on a first line in which the current is regulated by said constant current generator; and
>
> a voltage controller coupled to said drive voltage sensor for controlling the voltage of a supply for said constant current generator in response to said sensed voltage, and configured to control said supply voltage to increase the efficiency of said display driver;
>
> wherein said voltage controller is configured to reduce said supply voltage when this will not substantially reduce said regulated current and/or said display brightness;
>
> a drive voltage sensor for sensing the voltage on each said display drive line;
>
> a maximum voltage detector to detect a maximum voltage of said drive line sensed voltages;
>
> a difference detector to detect a difference between said maximum voltage and said supply voltage; and
>
> a comparator to compare said difference with a threshold defining an estimated said compliance limit of a said constant current generator; and
>
> wherein said voltage controller is responsive to an output of said comparator to control said supply voltage such that a said constant current generator driving said drive line having said detected maximum voltage operates in the vicinity of the compliance limit of the said constant current generator.

Claim 1 thus sets forth a display driver circuit that includes "a drive voltage sensor for sensing the voltage on each said display drive line" and "a maximum voltage detector to detect a maximum voltage of said drive line sensed voltages." A difference detector detects a difference between said maximum voltage and said supply voltage, while a comparator compares said difference with a threshold defining an estimated said compliance limit of a said constant current generator. The voltage controller is responsive to an output of said comparator to control said supply voltage such that a said constant current generator driving said drive line having said detected maximum voltage operates in the vicinity of the compliance limit of the said constant current generator.

Neither Sakamoto nor any of the other art of record whether taken alone or in combination can be said to teach or suggest the combination of elements now recited in claim 1.

Method claim 13 has been amended to recite controlling a supply voltage response to a sensed voltage by "detecting a maximum voltage of said drive line sensed voltages" and "determining a difference between said maximum voltage and said supply voltage." This control compares "said difference with a threshold defining an estimated said compliance limit of a said constant current generator" and controls "said supply voltage using an output of said comparing such that a said constant current generator driving said drive line having said detected maximum voltage operates in the vicinity of the compliance limit of the said constant current generator."

Neither Sakamoto nor any of the other art of record whether taken alone or in combination can be said to teach or suggest the now-recited subject matter of claim 13.

Applicants respectfully assert that claims 1 and 13 are in condition for immediate allowance, as are the claims depending therefrom.

Independent claims 30 and 31 recite a display driver control circuitry with similar features, except each claim references different implementations of the constant current generator. As none of the art or record teaches or suggests such subject matter, these claims are in condition for allowance.

Independent claim 32 is somewhat similar to claims 30 and 31, but recites "a system to dynamically determine said compliance limit for controlling said supply voltage." Claim 34 is a method claim that tracks the language of claim 32 and recites "dynamically determining said compliance limit for controlling said supply voltage." None of the art of record teaches or suggests the combination of features recited in these claims.

CONCLUSION

It is respectfully submitted that this application is now in condition for allowance. Should the examiner wish to discuss the foregoing, or any matter of form or procedure in an effort to advance this application to allowance, he is respectfully invited to contact the undersigned attorney at the indicated telephone number.

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Respectfully submitted,

By _____

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